

What is claimed is:

1. An electromagnetic switch for a starter, comprising:
 - a solenoid casing configured into a cylindrical body having a bottom formed at one axial end, with a circular opening provided on said bottom;
 - a coil accommodated inside said solenoid casing;
 - a plunger disposed slidably inside said coil via a cylindrical sleeve; and
 - a switch casing surrounding an outer surface of said solenoid casing; and
 - at least one pair of projection and groove engageable with each other, one of said projection and said groove being formed on an outer cylindrical surface of said solenoid casing and the other of said projection and said groove being formed on an inner cylindrical surface of said switch casing, so that engagement of said projection and said groove guides said solenoid casing shifting in an axial direction when said solenoid casing is inserted inside the switch casing.
- 15 2. The electromagnetic switch for a starter in accordance with claim 1, wherein said coil has lead lines connected to connecting terminals of a switch cover, and said switch cover is connected to said switch casing via a seal member.
- 20 3. The electromagnetic switch for a starter in accordance with claim 1, wherein
 - a ground plate is disposed at the other axial end of said solenoid casing so as to form a magnetic circuit together with said solenoid casing,
 - 25 said coil is interposed between said bottom of said solenoid casing and said ground plate, and
 - said ground plate is fixed by deforming an opened end of said solenoid casing.
- 30 4. The electromagnetic switch for a starter in accordance with claim 1, wherein said solenoid casing has a cylindrical portion protruding outward in the axial direction from the periphery of said circular opening of said bottom, and

said sleeve is inserted inside said cylindrical portion of said solenoid casing.

5. The electromagnetic switch for a starter in accordance with claim 1,
wherein said switch casing is integrally formed with a center housing interposing
5 between a starter housing and a motor.

6. The electromagnetic switch for a starter in accordance with claim 1,
wherein a plurality pairs of the projection and the groove are disposed at a
plurality of circumferential positions spaced at equal angular intervals in the
10 circumferential direction.

7. The electromagnetic switch for a starter in accordance with claim 6,
wherein

15 said switch cover is fixed to said switch casing by means of fixing
members disposed at equal angular intervals in the circumferential direction, and
the total number of said fixing members is identical with that of said
plurality pairs of the projection and the groove.

8. The electromagnetic switch for a starter in accordance with claim 1,
20 wherein

said switch cover has a pair of motor terminals being disposed oppositely
about an axial center of the switch cover for providing an electric path supplying
electric power to a motor when connected to each other, and

25 said switch cover has two coil terminals being disposed oppositely about
the axial center of the switch cover and connected to said coil via lead lines.